



Start with your audience in mind

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Effective communication is not about you

Beliefs Customer needs Offerings
Opportunities Threats Assumptions
Audience Interests Benefits
Weaknesses Proofs
Competition Features Strengths
Prior Knowledge Customer wants

Let your audience guide your approach

Start by asking three questions

- Who is my audience?
- Why is my audience reading or listening?
- What does my audience know or believe?

The major weakness that I see in papers by young researchers is that they organize their writing to parallel the time and effort required for the various aspects of the research. So, if they spent 90 percent of their time doing X, they seem to almost inevitably organize the paper so that 90 percent of the paper is focused on X – even when the most interesting and significant results are in the other 10 percent.

– Andrew Zydney

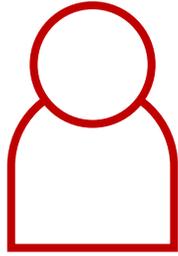
Neutral audience, expected results

- Start with your assertion of the conclusion
- Present the evidence that has led you to your conclusion

Hostile audience, unexpected or controversial findings

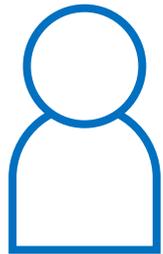
- Show your understanding of your audience's initial position
- Present your evidence
- Reveal your conclusion

For today, I imagined three audience types



Graduate students within 2 years of PhD

- May write observing time proposals
- May have some fellowship application experience
- Still focused on their experience



Post-docs establishing themselves in their field

- Have been successful in applying for jobs and resources
- Want to expand from individual to team success



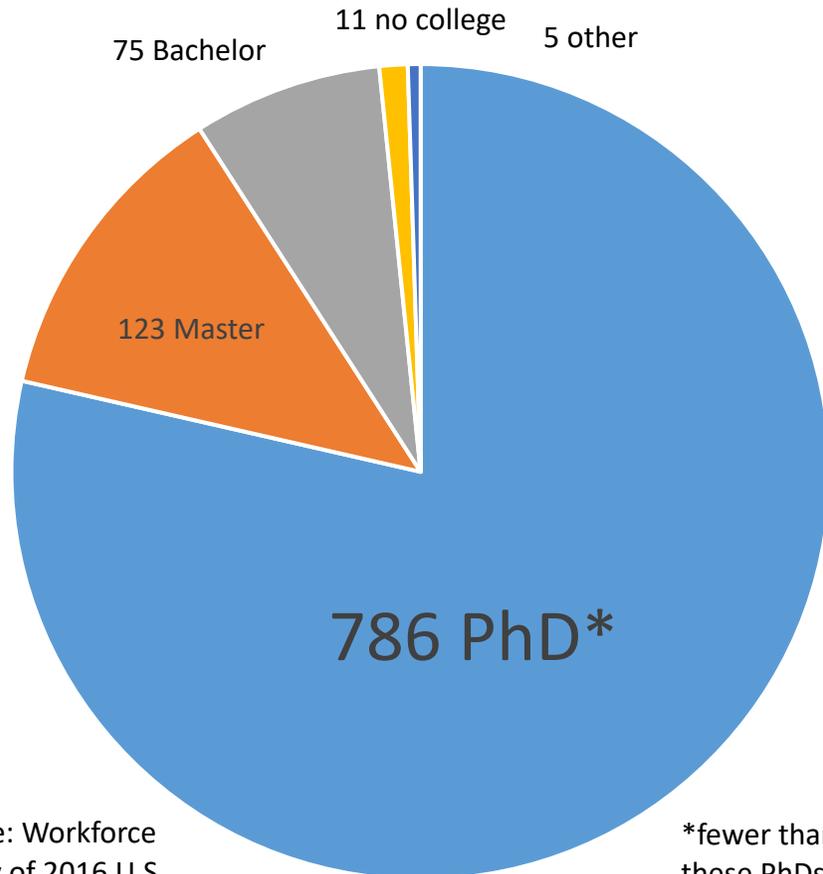
Mid-career researchers ready to step up to a major leadership role

- Established and recognized in their own field
- Well versed and successful in proposal writing
- Successful in team building
- Want to shift to a science leadership and management role

How many of you does this cover?

Don't assume your audience is like you

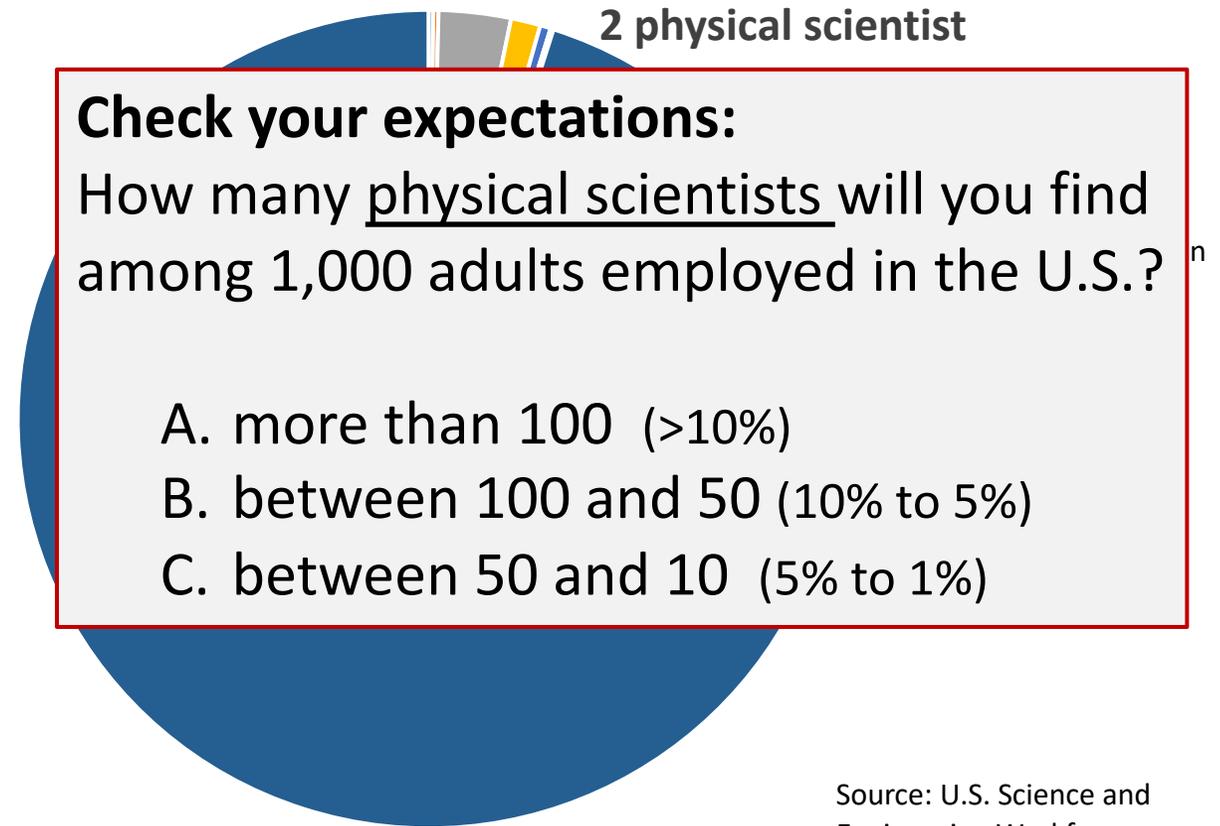
American Astronomical Society (out of 1,000)



Source: Workforce survey of 2016 U.S. AAS Members

*fewer than 5% of these PhDs are outside physical sciences

U.S. Workforce (out of 1,000)



Source: U.S. Science and Engineering Workforce. Congressional Research Service, November 2, 2017

Distinguish between similar, but different audiences



A pitch aimed at one audience, but delivered to another, will fail.

How you can learn about your audience:

- **Presentations:** event organizers, organization's websites, previous speakers and topics, talk to attendees
- **Job application:** company websites, annual reports, informal interviews, 990 tax form for non-profits, individuals in positions you want
- **Funding organizations:** solicitation documents, start as co-investors, serve as reviewer, advise on colleagues' proposals even if not a collaborator, strategic plans, advisory committees
- **Organizational change request:** organizational charts, public profiles, LinkedIn, social media, colleagues, stake holders in parallel positions

Determine how persuasive you need to be

per·suade

/pər'swād/

verb: **persuade**; 3rd person present: **persuades**; past tense: **persuaded**; past participle: **persuaded**; gerund or present participle: **persuading**

- cause (someone) to do something through reasoning or argument.
- cause (someone) to believe something, especially after a sustained effort; convince
- (of a situation or event) provide a sound reason for (someone) to do something

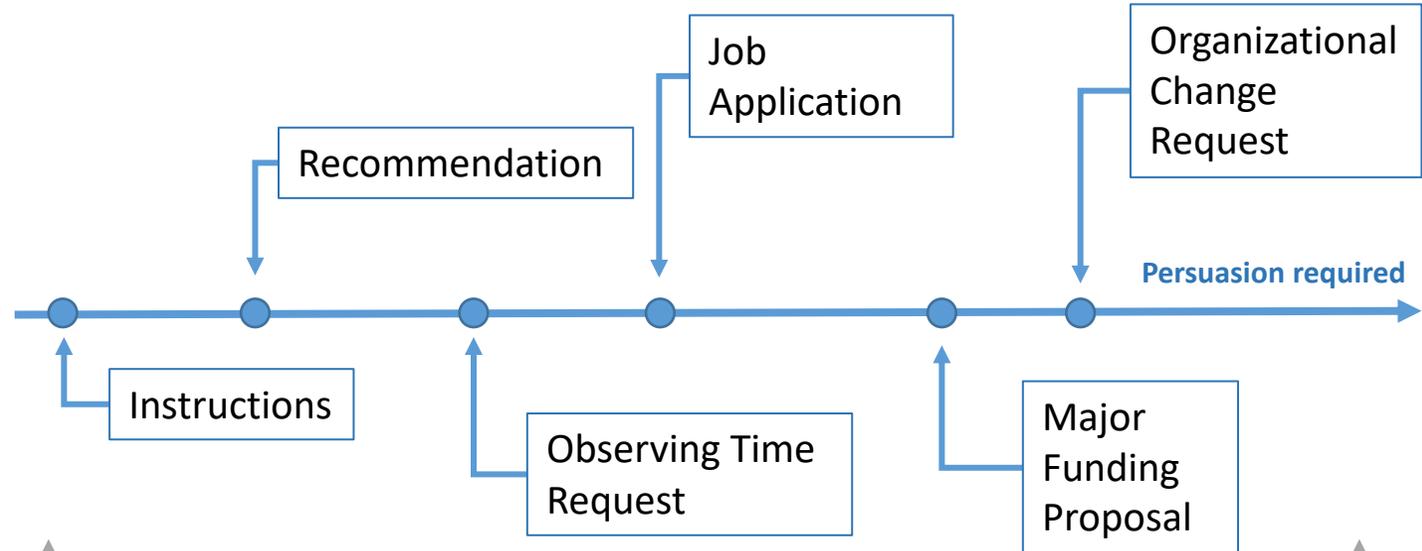
Similar: talk someone into, coax, convince, make, get, cause, lead, motivate, induce, make

Informative writing

- Just the facts: *What, Where, When, and How*
- Lists are effective for instructions

Persuasive writing

- Your credibility is important
- Focus is on: *Why*
- Fully developed, longer paragraphs need to show how the ideas of your argument connect



Account for the occasion's form, formality and politics

- **Form**
 - When responding to fellowship or proposal solicitations, follow the required format. You will be ahead of 1/3 of applicants.
 - While English grammar has relatively few rules, English punctuation has many
 - If you have any doubt, and even if you don't, have someone else review your work
- **Formality**
 - Scientific writing is formal, but don't let formality get in the way of comprehension
 - Smaller words are easier to understand
 - A large portion of.....many
 - Notwithstanding the fact that.....although
 - From time to time.....occasionally
- **Politics**
 - Account for politics, but don't let them drive your behavior
 - In rare cases, a focus on politics has led to catastrophic results (Space Shuttle *Challenger* disaster)
 - Above all, tell the truth and treat people well (see ethics guidelines of the American Physical Society for more details)

References and additional resources

- Michael Alley, “The Craft of Scientific Writing”, 4th Edition
- Dan Roam, “The Back of the Napkin”
- Larry Newman, “Shipley Proposal Guide”
- Nancy Duarte, “slide:ology The art and science of creating great presentations”
- Marc J. Kushner, “Marketing for Scientists. How to shine in tough times”
- Harold Evans, “Do I make myself clear? Why writing well matters.”
- Peter Block, “Flawless consulting. A guide to getting your expertise used”
- Andrea A. Lunsford “Easy Writer”, 6th Edition

Thank you!

Abstract

Do you research your audience before you draft a presentation, write a proposal, or submit a paper? Do you ask: How will what I do help, interest, or inspire my audience? As a researcher looking for observing time, funding, and jobs, you cannot leave connecting with your audience to chance. Without connection, it is so much harder to convince your audience. To convince them that you are the right individual to invest their time and resources, or to hire you.

I summarize strategies to get to know your audience before you meet them. I identify some of the ideas and frameworks they might carry while listening to you. And I challenge you to question your assumptions about how “typical” your own reference frame is. All of this will help you get your listeners’ and readers’ attention. And it will move you a critical step closer to what you want.